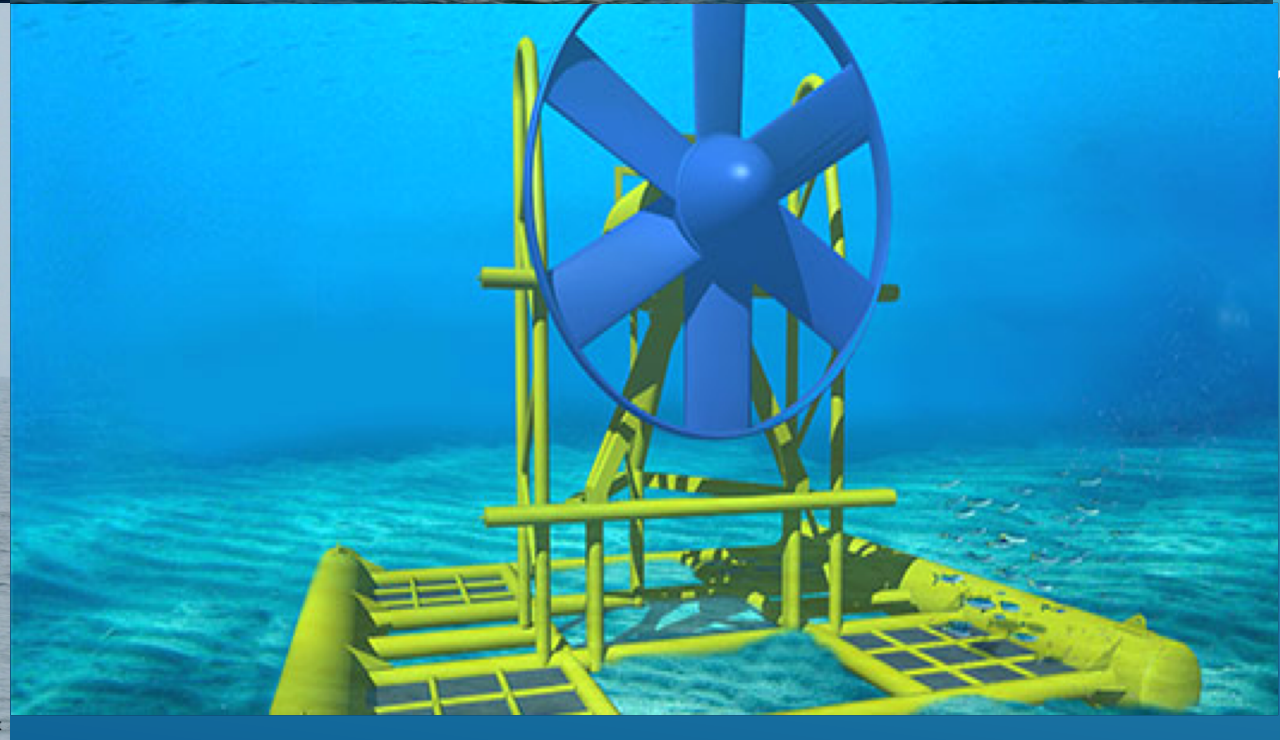


*A MARINE CADASTRE TO
MANAGE CONFLICT USE
&
FACILITATE MARINE
RENEWABLE ENERGY*

Séverine Michalak

Doctor in Law

25 January 2017 WMU MALMO
SWEDEN



NUMBER and SIZE

of MRE

farms

increase

conflict uses



Privatization

of

marine

space



NUMBER

In EUROPE

3 344 offshore

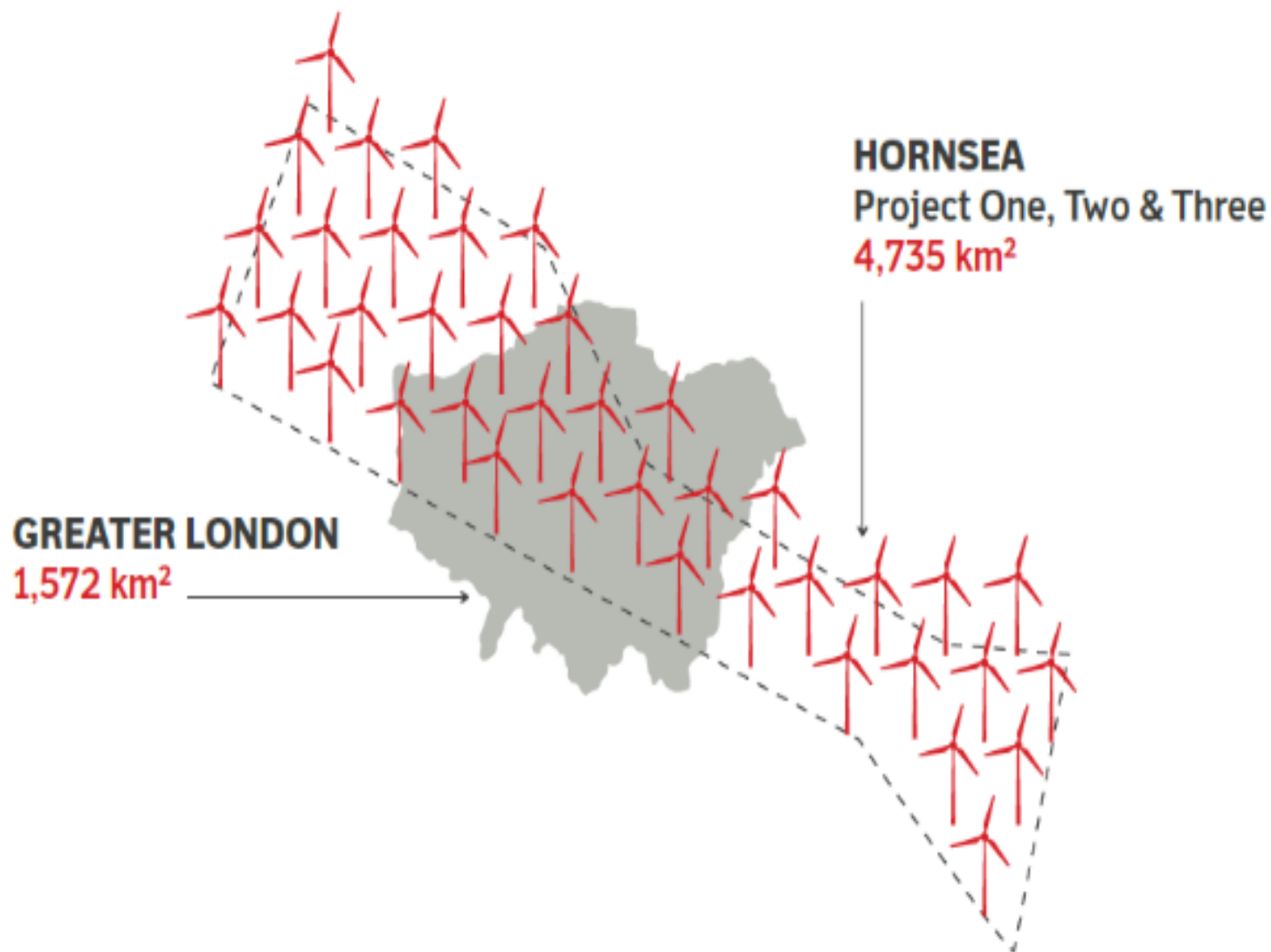
wind turbines



SIZE

Hornesea zone:

Dong Energy offshore wind projects (off the coast of Yorkshire in UK)



Hornesea 1: 407 km²

Hornesea 2: 462 km²

Hornesea 3: 696 km²

Hornesea 4: 845 km²

SUCCESS of MRE DEVELOPMENT = good mix between :


1) Exclusivity or priority required by MRE

and

2) marine space legal regime : common use

Several white diagonal lines of varying lengths and thicknesses are positioned in the bottom right corner of the slide, creating a modern, abstract graphic element.

In order to find this good mix : we need :

- 1) to identify & list all existing rights in the seaspace
 - 2) to analyse interaction between them (eg : freedom of sailing & right to harness MRE)
 - 3) to analyse the legal possibilities to prioritize MRE
- 
- Several white lines of varying lengths and angles are positioned in the bottom right corner of the slide, creating a modern, abstract graphic element.

1) To identify & list all existing rights in the seaspaces:

MULTIPURPOSE MARINE CADASTRE: MSP complementary tool to identify rights, restrictions and responsibilities in the seaspaces

PIONEERS: CANADA, USA, AUSTRALIA

CANADA has the longest coastline in the world

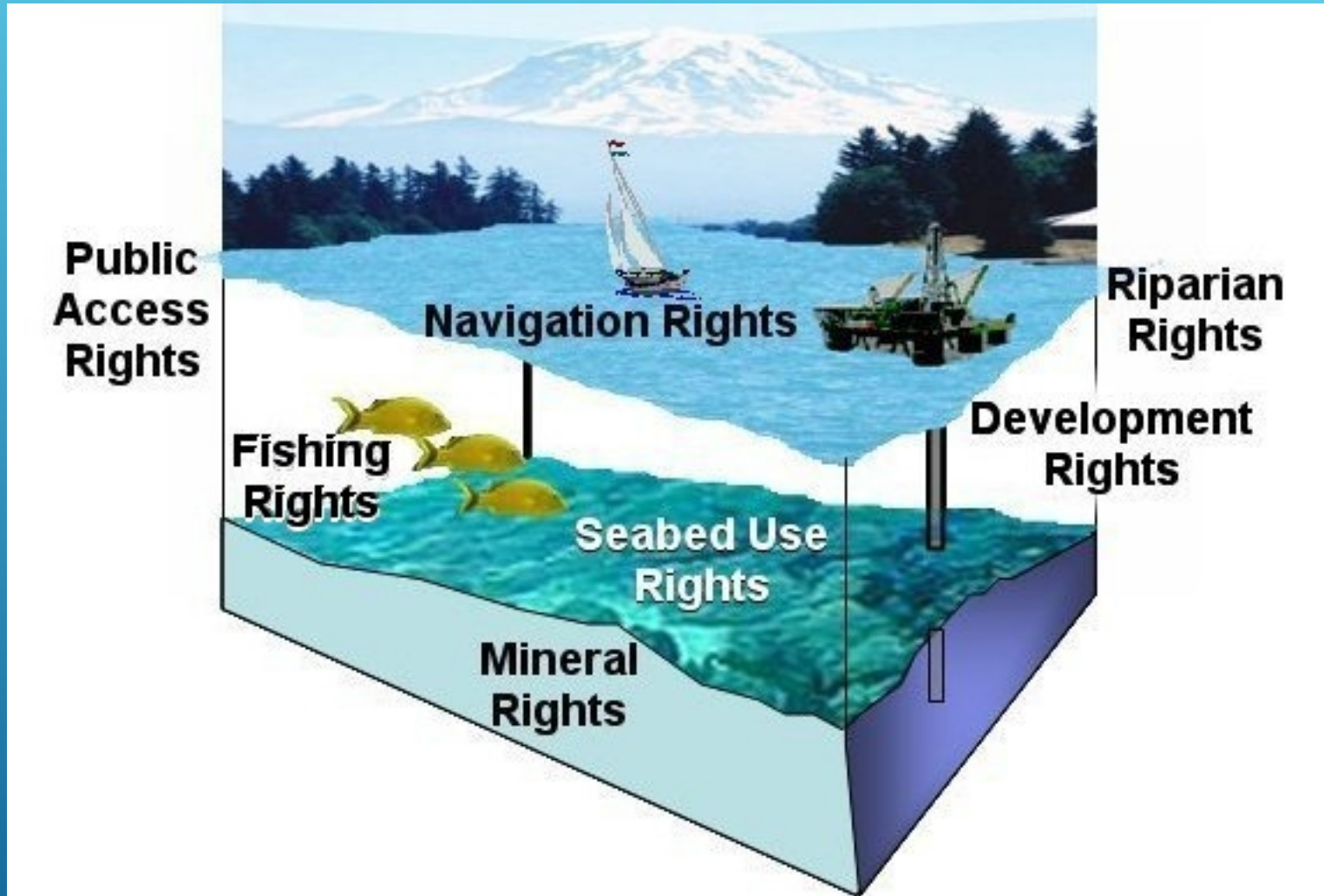
USA: www.marinecadastre.gov : clearly set up to facilitate OWE

MULTIPURPOSE MARINE CADASTRE:

European countries, Greece, Israel are now studying the concept.

Each country has its own legal regime for seaspace (public or common property), but a common initiative exists coordinated by CGLE

Several thin, parallel white lines are drawn diagonally across the bottom right corner of the slide, extending from the right edge towards the bottom.



SPECIAL FEATURES OF
MMC by comparison
with land cadastre:

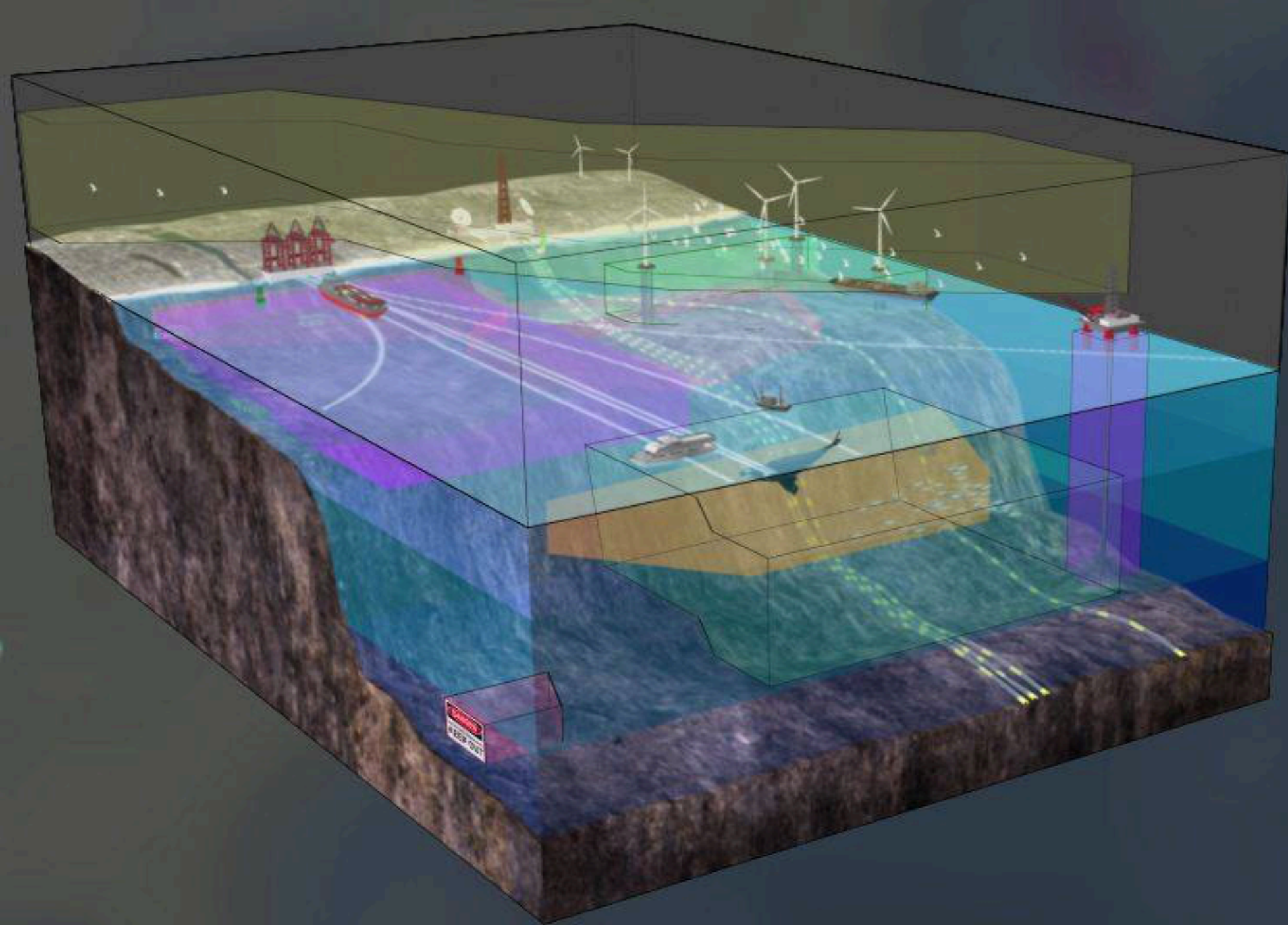
4D ASPECTS

TEMPORARY USE

SHARED SOVEREIGNTY:

Respect of innocent
passage in territorial sea

Respect of other states
rights in ZEE

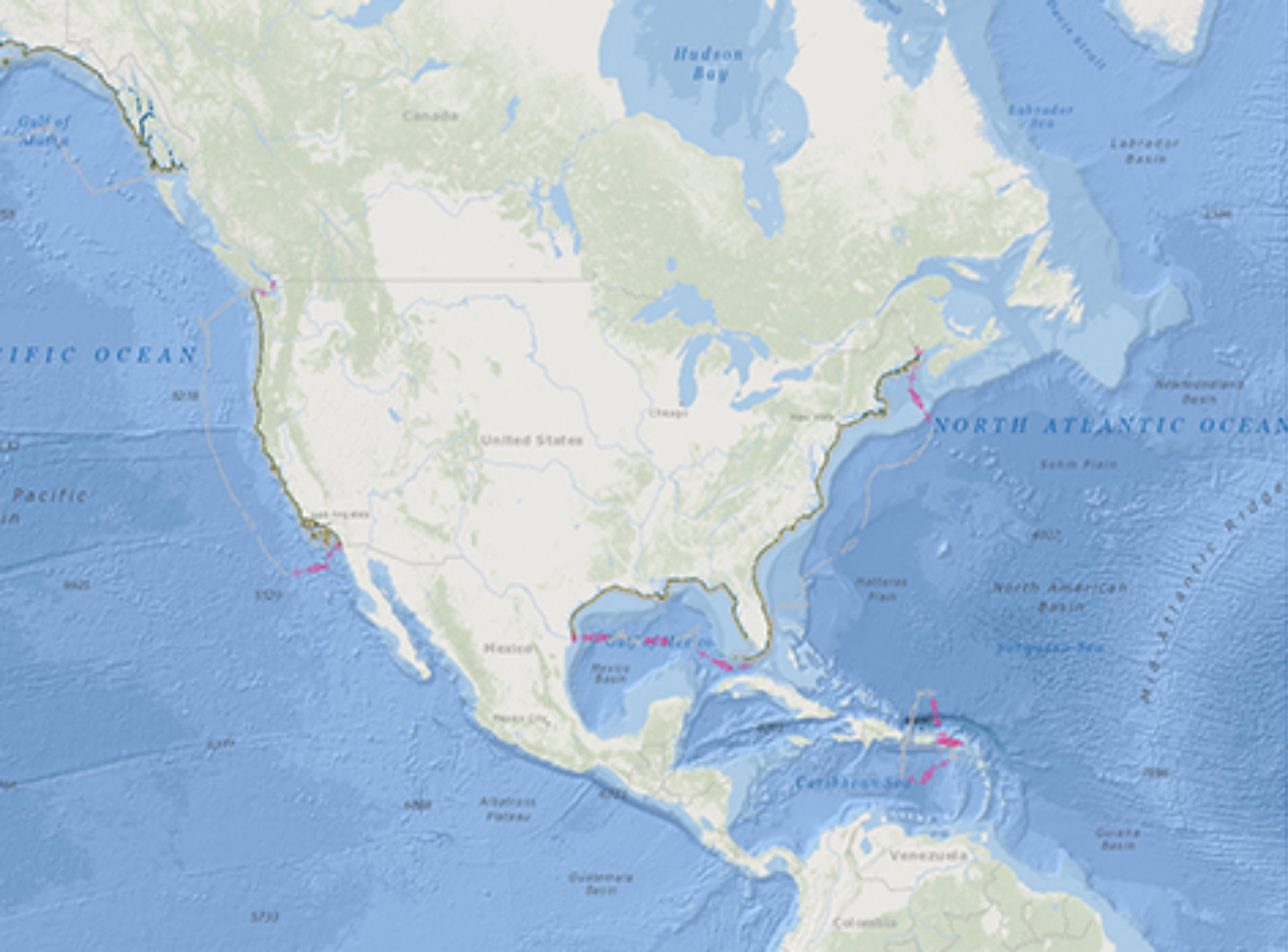


AIR COLUMN

SEA SURFACE

WATER COLUMN

SEA FLOOR



ALL LAYERS

ACTIVE LAYERS

Filter by tags

MATCHING LAYERS

2/8

| | | | | |
|-------------------------------------|---|--------------------------|--------------------------|--------------------------|
| <input checked="" type="checkbox"/> | 12NM Territorial Sea | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | 2009 Vessel Traffic (AIS) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | 2009-2010 Commercial Vessel Density (October - AIS) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input checked="" type="checkbox"/> | 200NM EEZ and Maritime Boundaries | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | 2010 Vessel Traffic (AIS) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | 2011 Vessel Density | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | 2011 Vessel Density: Cargo | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | 2011 Vessel Density: Fishing | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | 2011 Vessel Density: Passenger | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | 2011 Vessel Density: Pleasure Craft and Sailing | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | 2011 Vessel Density: Tanker | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Marine cadastre is a layer of MSDI

MSDI : Marine Spatial Data Infrastructure including:

seabed topography, geology, marine infrastructure, resources utilisation, administrative and legal boundaries, areas of conservation, marine habitats and oceanography

(International Hydrographic Organization 2011)

Several white lines of varying lengths and orientations are positioned on the right side of the slide, extending from the middle to the bottom right corner.

- ▶ 2) Building a marine cadastre requires to know the legal grounds of marine space use and to redesign a property rights regime

In a land cadastre, the main property right is the right to exclude others from property.

- ▶ In the seaspace, the degree of exclusivity or priority granted to MRE developers differs from one country to another.

- ▶ Priority or exclusivity of use granted to MRE farmers exists regarding:
 - ▶ 1- Other fixed activities: aquaculture, aggregate extraction...
 - ▶ 2- Nomadic activities: commercial & leisure navigation, fishing.
- 
- A series of white diagonal lines of varying lengths and thicknesses are positioned in the bottom right corner of the slide, creating a modern, abstract graphic element.

► UNCLOS :

- TERRITORIAL SEA: art. 19-22: Innocent passage: Coastal state has to respect it but can restrict it if foreign vessel passage is a threat for the security of MRE installations.
- ZEE: art. 60.5: safety zones: 500 m around MRE farms
- Art.60.4: coastal state can take *appropriate measures* in safety zones to ensure security of navigation

- ▶ In both cases:
- ▶ appreciation of degree of security here depends on coastal state discretionary power.
- ▶ UNCLOS fixes max size for safety zone: 500 m but is silent about the kind of vessels allowed to cross it.

▶ 3) Which priority for MRE ?

▶ A-Regarding fixed activities

▶ GERMANY :

▶ *Vorranggebiete*: Priority zone where exclusivity is granted to offshore wind energy (OWE)

▶ *Vorbehaltsgebiete*: reserved zone where OWE is more supported than other activities

- ▶ A- Regarding fixed activities
- ▶ BELGIUM : Royal decree 20 March 2014 : a special zone dedicated to MRE has been selected: MRE has priority.
- ▶ PORTUGAL: - Law n°57/207 31 August 2007: alllows private use of water column in territorial sea for wave energy
- ▶ - Decree-law n°5/2008 8 January 2008: grants priority to wave energy

- ▶ B- Regarding nomadic activities:

- ▶ UK

- ▶ Section 36 B Electricity Act 1989: respect of public right of navigation and priority granted to main shipping lanes over MRE farms

- ▶ But Section 36 A: public right can be restricted regarded to MRE farms safety zones.

- ▶ Safety zones : 500 m during construction & 50 m during exploitation: no vessels access, except if expressly allowed (Art 96 Energy act 2004)

- ▶ 2- Regarding nomadic activities:

- ▶ GERMANY

- ▶ Sailing & fishing prohibited during construction in the 500 m safety zone

- ▶ During operation: rules vary according to farms. In EnW Baltic 1: only for vessels less 24 m and provided visibility is at least 500 m.

- ▶ 2- Regarding nomadic activities:

- ▶ BELGIUM

- ▶ Royal decree 11 april 2012

- ▶ Defines a 500 m safety zone around 1 or several wind farms

- ▶ No vessel access except warships or maintenance



► In FRANCE:

► MRE development needs more legal prioritization: eg:
creation of a legal consent regime specific to MRE

► Creation of an Energetic Public Domain

Several white lines of varying lengths and orientations are positioned in the bottom right corner of the slide, creating a modern, abstract graphic element.

CONCLUSION

MARINE CADASTRE:

- can be an efficient tool to manage conflict use
- but also to manage economic resources resulting from MRE & other marine activities
- requires to create a new legal property rights regime in the seaspace: why not a right to include more than exclude ?